

Message

From: Compher, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E258CB856E3D4AE6BACCA7FA48CA827A-MCOMPHER]
Sent: 4/27/2017 1:09:46 PM
To: Hamilton, Scott [hamilton.scott@epa.gov]
Subject: FW: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-
Attachments: Steps to accept data not meeting critical criteria.docx

Scott - A few brief comments, below. Only speak up on the call to the extent you are comfortable. If you need to say on the call that we've been focus on Phase I sites and are still reviewing their draft; that's fine.

I agree with reporting all checks, failed or not, and flagging/invalidating those checks exceeding the validation criteria as appropriate. This is more transparent for all.

I agree with requirement to flag and provide comment on valid and invalid data associated with the check exceeding the criteria

I agree with several other Region's comments about not getting Regions involved in data validation role. That blurs responsibility with our oversight role. Yes we should review these instances and ask questions if the flagging and comments are not sufficient, but we do have several oversight mechanisms (TSAs, data certification concurrence, and routine interactions (monthly calls with our monitoring orgs) to evaluate whether this process is being done consistently and according to our Regs and guidance.

We definitely encourage more direction and consistency on AQS data reporting/flagging.

I hope this helps. Please also read through Jesse's feedback below and in the attachment.

Michael Compher
Chief, Air Monitoring and Analysis Section
Region 5 Air and Radiation Division
U.S. Environmental Protection Agency
Phone: 312-886-5745

From: McGrath, Jesse
Sent: Monday, April 24, 2017 7:07 PM
To: Compher, Michael <compher.michael@epa.gov>
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

I have a low opinion of this, we offered OAQPS a chance to put in reasonable wording in the first memo, which they dismissed out of hand. Now, after sending a memo that only says to invalidate everything outside of 7%, they're offering something they claim addresses our comments, but which can't possibly be used before the damage is done. On my beliefs about the intents of the people involved, that raises red flags to me.

My comments in the document are much more softly worded. I see almost no scientific or policy basis for the proposal. It has exactly the same effect as invalidating the QC checks; it misrepresents the accuracy of the instrument by removing QC checks from the summary stats. Importantly, it betrays a severe misunderstanding of what the checks are for, as they come to illogical conclusions about when to keep outlying checks.

The new regional approval will make it where the states can't justly refuse to remove data that should not be invalidated, and appears to be little more than a club to force states to fall in line.

That this is just a flagging system tacked onto an inappropriate action also raises red flags. It doesn't address in any way that invalidating on hard limits misrepresents the QC statistics, or that the original memo contradicts decades of guidance and past practice.

Jesse

From: Compher, Michael

Sent: Friday, April 21, 2017 12:44 PM

To: McGrath, Jesse <mcgrath.jesse@epa.gov>; Qazzaz, Bilal <qazzaz.bilal@epa.gov>; Hamilton, Scott <hamilton.scott@epa.gov>

Cc: Siegel, Kathryn <siegel.kathryn@epa.gov>

Subject: FW: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Scott, Bilal, and Jesse,

This just came in from OAQPS, and I haven't read it closely. Please take a look at this memo, and by COB Monday, reply back with your overall comments (either comments embedded in the word doc or just listed in your response email). I'll compile our feedback, convey it to OAQPS, and include each of you in our response. If your comments contrast, I may call a short meeting to discuss perspectives.

I realize that the focus on ozone lately has consumed much of our time, but this work and our data is really important and we need to be responsive and timely. Thanks for continuing to contribute.

Michael Compher

Chief, Air Monitoring and Analysis Section

Region 5 Air and Radiation Division

U.S. Environmental Protection Agency

Phone: 312-886-5745

From: Papp, Michael

Sent: Friday, April 21, 2017 12:17 PM

To: Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>

Cc: Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>

Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Yesterday Lew Weinstock, Liz Naess and I presented the OIG issues on the NACAA call. We had some push back on the call but I thought Lew did a great job of making the monitoring organizations understand the issue. During the call there was a discussion of how to validate some data in which a check failed but the monitoring organization went out and did some "as is" QC check or multi-point verification which proved that the analyzer was operating properly. I mentioned on the call that I had started developing a flagging technique that I initially thought would be something that we would start implementing after we got through this current validation process but it sounded like it might be helpful now for those that might want to use it. The document is attached.

The difference in this procedure is now it seems prudent to allow failed 1-point QC checks to be reported to AQS. This is reversal on my past position that the checks should not be included if the data is also invalidated

but we can make AQS disregard these points for assessments with the correct flagging technique while still reporting them.

Please let me know what you think about the approach. I ran this past Robert Coats and it's doable. I think minimally if some Regions felt they could use it, the data flagged as "V1" by the monitoring orgs would have to have compelling reason documented and concurred with by the Region through either an email or formal memo back to the Regions and archived here. Region 6 received a formal letter by ODEQ which showed what data they would invalidate and where they had a compelling reason to keep the data. Until we had the full system in AQS working, where you could concur with the AQS data, this would seem acceptable to us.

We may want to have a quick call conference call with the Regions on this technique.

Please send any comment to Lew and I ASAP. If we find this acceptable we could get this out to the monitoring orgs ASAP since they were interested in seeing it.

Thanks and have a good weekend

-----Original Message-----

From: Weinstock, Lewis

Sent: Thursday, April 13, 2017 8:44 AM

To: Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compther, Michael <compther.michael@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>
Cc: Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Papp, Michael <Papp.Michael@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>

Subject: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues

Importance: High

Good morning:

As you all are aware by now, we have recently identified ambient ozone data in AQS that was reported during periods of time when 1-point QC checks were outside the critical criteria in the QA Handbook and contained in approved monitoring organization QAPP's. We are currently in the middle of the ozone designations process and it is important that we maintain the integrity of that process. It is critical that we base our designations decisions on defensible data for areas both attaining and not attaining the standard. To this end, we believe that the data identified as outside these critical criteria be null coded in AQS so that the underlying design values supporting the designations process are based on valid data. We understand that there is limited time to complete this work due to the tight timelines for designations. Therefore, this process has been divided into two phases as explained below:

Phase 1:

These are high priority monitors whose 2014-2016 design value would change or become incomplete due to the data invalidations. Attached to this message is an Excel table that explicitly lists the monitors and periods of time for when ozone data should be null coded (coded as Phase 1). We ask that you communicate with the affected monitoring organizations to ensure that these data are invalidated in AQS no later than May 1, 2017 (we will be doing our design value pull from AQS on the morning of May 2). Luckily this first phase only affects about 80 monitors, as some states have already begun invalidating their data.

Phase 2:

The list of the remaining monitors that will have similar data invalidation actions are coded as Phase 2 in the Excel table. These monitors have a less immediate impact on designations so are being included in the Phase 2 action. We recognize

that this phase affects a larger number of monitors, therefore we are providing more time to invalidate this data. Please work with your monitoring organizations to complete this exercise by August 1, 2017.

Additional details on the Excel table: The attachment contains three tabs: (1) Data Invalidations – which contains specific information for the data invalidation, (2) 2014-2016 Design Values – design values before and after (“a” added to column heading) data invalidations, and (3) Failed QC Checks – details on the actual QC checks. Please contact Liz Naess (Ben Wells is out of the office until 4/24/17) or Mike Papp with questions on the data retrieval (Liz/Ben) or associated QA issues (Mike).

For additional background information on this quality assurance issue, please refer to the attached memo entitled “Ozone 1-point QC Check Data Quality Evaluation and Next Steps”.

We will be checking in periodically during our monthly conference calls to answer any questions and assess progress on this action. Thank you for your prompt attention to this matter.

Lewis Weinstock (Ambient Air Monitoring Group and Liz Naess (Air Quality Analysis Group)

Air Quality Assessment Division - Mail Code C304-06 | Office of Air Quality Planning & Standards | U.S. Environmental Protection Agency | Research Triangle Park, NC 27711 |